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EXAMINER

KNABLE, GEOFFREY L

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1733

DATE MAILED: 11/19/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

C20 10

# Office Action Summary

Application No.

09/840,095

Applicant(s)

CARETTA ET AL.

Examiner

Geoffrey L. Knable

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 27-90 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27-90 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☒ Certified copies of the priority documents have been received in Application No. 09/219,422.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 27-86 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 27 has been amended to define that the circumferentially inextensible annular member is formed by depositing concentric coils to form the insert "directly against respective side portions of the first strip lengths". New independent claims 56, 85 and 86 define similar requirements. It however is not seen where the original disclosure describes that these members may be formed by depositing "directly against respective side portions of the first strip lengths" as now claimed and no support thereof has been specifically pointed to. The only apparent description of formation of these members indicates that they are formed separately (e.g. fig. 9) and then applied. As such, this was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, i.e. it is considered to be new matter.

3. Claims 27, 30-34, 38, 40-42, 45-56, 59-63, 67, 69-71 and 74-90 are rejected under 35 U.S.C. 103(a) as being unpatentable over FR 384,231 taken in view of Herbelleau et al. (US 5,660,656) and/or Drakeford et al. (US 3,072,171).

FR 384,231 discloses a tire structure formed on a toroidal support by depositing strip lengths, each including longitudinal reinforcement, on the toroidal support so that the strips are in side by side contact at the crown and overlap partly along the sides. Further, these strips clearly terminate at the bead base without any further turn-up (note esp. the figures). As to the claimed circumferentially inextensible annular structure, although the figures in the reference do not clearly illustrate such additional reinforcement, at page 4, lines 2-5 of the translation for this document, it is clearly indicated that "[b]eads can be reinforced by making a ring or segment, made of metal or another suitable substance capable of transmitting a great stiffness to it, integral with said beads by vulcanization". It thus is considered clear that this reference contemplates the inclusion of annular bead reinforcement although specifics of their construction is not provided.

Herbelleau et al. and Drakeford et al. are both directed to bead reinforcement particularly in the context of carcass constructions in which the carcass reinforcement terminates at the bead base without turn-up and in particular each suggests provision of an annular bead reinforcing structure in the form of concentric coils adjacent the ends of the carcass reinforcing material - note the figures of each reference. Insofar as FR '231 is directed to a carcass structure with the reinforcing plies ending at the bead bases and further clearly suggests that annular bead reinforcement can be included, it would have been prima facie obvious for the ordinary artisan to look to known bead reinforcing constructions that are further known to be suitable and effective in the context of carcass construction in which the carcass reinforcement ends at the bead bases.

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Herbelleau et al. and Drakeford et al. are two such teachings, these references rendering it obvious to include an annular bead reinforcing structure for the FR '231 tire that is in the form of concentric coils as claimed. Whether these are formed/wound directly at the drum or separately formed would have represented obvious alternatives leading to only expected results, it further being again noted that it is not considered that the original disclosure supports/describes direct deposition of coils against the carcass. This is thus considered to render obvious a method as required by claim 27 as amended.

As to the seven newly added independent claims, following the teachings of Herbelleau et al. and Drakeford et al., the artisan would not be taught to add flippers (as required by claims 56, 87 and 88). Further, the bead structure as taught by these references would also be clearly radially elongated and of growing diameter as required by claims 85, 86 and 88-90. As to the remaining claims, suitable dimensional selections (claims 30-34) would have been routine and obvious selections for the artisan guided by the basic reference teachings. Further, suction drums being well known per se in tire building, use of such (claims 38 and 67) would have been obvious if desired or needed. As to claims 40-42 and 69-71, plural layers are clearly taught by FR '231 and further pressing of the strips to the core would have been readily apparent to the artisan as a necessary and obvious step. Conventional molding/vulcanization, as would certainly be obvious to effect, is considered to render the claims 45-46 and 74-75 requirements obvious. As to claims 47-55 and 76-84, various configurations for the annular bead reinforcement including plural coils, etc. are suggested/rendered obvious by

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Herbelleau et al. and Drakeford et al. Note also the indication at page 4, lines 11-17 of the translation for FR '231 that longitudinal strips if provided can be placed under, above and between layers, it being considered that these would have been seen to be similar in structure and function to the bead reinforcement and therefore instructive to the artisan in determining appropriate positioning thereof. Further, annular bead assemblies are conventionally formed as a separate subassembly in this art, it therefore being obvious to effect separate formation on a forming surface (i.e. mold) if desired for only the expected results.

4. Claims 28, 29, 39, 43-44, 57, 58, 68 and 72-73 are rejected under 35

U.S.C. 103(a) as being unpatentable over FR 384,231 taken in view of Herbelleau et al. (US 5,660,656) and/or Drakeford et al. (US 3,072,171) as applied to claims 27, 30-34, 38, 40-42, 45-56, 59-63, 67, 69-71 and 74-90 above, and further in view of Alderfer (US 3,826,297).

As to claims 28-29 and 57-58, FR '231 clearly illustrates deposition of a series of rectangular strips of the same size/shape but does not clearly illustrate how these are formed. It however is submitted that it would have been readily apparent to the ordinary artisan that the most efficient manner to form a series of strips would be by cutting a continuous strip as claimed. Alderfer provides further evidence that the artisan faced with the problem of forming a series of rectangular carcass strips would cut them from a continuous stock - note esp. fig. 1. It is therefore considered obvious to cut/deposit successive strips as claimed.

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As to claims 39 and 68, the claimed methodology would seem to represent the natural and obvious way to apply successive strips to a toroidal support, Alderfer providing further evidence of the known and conventional natural of successive application and drum indexing to apply strips to a support as claimed. Initial application of a liner layer on the drum (claims 43-44 and 72-73) further would have been obvious in light of Alderfer (note layer 88), particularly if tubeless tires are desired.

5. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection necessitated by the amendments to the claims.

It is noted that the translation for FR 384,231 has been considered but the listing for FR 384,231 has been crossed off from the latest form PTO 1449 (paper #9) as this reference is already of record on a previous form 1449.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 703-308-2062. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 703-308-3853. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

  
Geoffrey L. Knable  
Primary Examiner  
Art Unit 1733

G. Knable  
November 16, 2003